

**APPLICATION FOR
UNITED STATES LETTERS PATENT**

of

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for

AIRPORT SECURITY ACCESSORY POUCH

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AIRPORT SECURITY ACCESSORY POUCH

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to devices, systems, and processes useful as pouches for holding items, and more specifically to such pouches attachable to luggage for passing through airport security systems.

Brief Description of the Related Art

[0002] Increases in the amount and intrusiveness of airport security through which travelers must pass have presented numerous problems and inconveniences. When passing through a typical airport security system that includes both a walk-through metal detector and a conveyor belt driven X-ray machine for carry-on luggage, travelers must typically remove all metal objects from their persons (e.g., coins, watches, cell-phones, belt buckles), and are often required to remove their shoes for inspection. Currently, these items are placed into plastic tubs or bins that are either passed through the X-ray machine or around the metal detector. Unfortunately it is sometimes the case that these tubs or bins overturn, spilling the traveler's belongings on the floor or into the X-ray machine, or become separated from the traveler for an extended period of time during a secondary screening check. Additionally, after the traveler has passed through the security system, she typically must place all of these items back into her pockets and/or carry-on luggage, which can cause traffic flow problems at the security system area as many travelers attempt to reclaim and stow away their respective properties.

[0003] There remains a need for a convenient way for travelers passing through airport security systems to retain their belongings.

SUMMARY OF THE INVENTION

[0004] According to a first aspect of the invention, a foldable pouch comprises a front and a back connected together to form a pouch having an open top, two closed sides, and a closed bottom, at least one stiffening member in the back, the at least one stiffening member comprising at least two separate, spaced apart segments, at least one strap attached to said top, the at least one strap including a releasable closure system that forms a loop when closed, and a securing system including at least two portions, one portion of said securing system positioned adjacent to said top, a second portion of said securing system positioned adjacent to said bottom, wherein said at least one strap can be secured around a handle of a piece of luggage, said pouch can be folded at least once at a position between said at least two separate, spaced apart segments, and said pouch can be secured closed in a folded configuration with said securing system.

[0005] Still other aspects, features, and attendant advantages of the present invention will become apparent to those skilled in the art from a reading of the following detailed description of embodiments constructed in accordance therewith, taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The invention of the present application will now be described in more detail with reference to preferred embodiments of the apparatus and method, given only by way of example, and with reference to the accompanying drawings, in which:

[0007] Fig. 1 illustrates a front side elevational view of a pouch in accordance with the present invention.

[0008] Fig. 2 illustrates a back side elevational view of a pouch in accordance with the present invention.

[0009] Fig. 3 illustrates a front elevational view of a pouch in accordance with the present invention, in a folded configuration.

[0010] Figs. 4 and 5 illustrate left side elevational views of a piece of luggage to which a pouch has been mounted.

[0011] Fig. 6 illustrates a left side elevational view of a portion of an airport security system on which luggage and a pouch have been placed.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0012] Referring to the drawing figures, like reference numerals designate identical or corresponding elements throughout the several figures.

[0013] In general terms, the present invention provides a way to speed the airport security screening process, by users removing their shoes, belt buckles, money change, and other metal objects that would set off the personal x-ray machine, and placing them in an accessory pouch while waiting in line and prior to arriving at the x-ray machine. The use of an accessory pouch according to the present invention can also help reduce the dependency on plastic containers at airport screening stations.

[0014] The present invention can include a collapsible pouch that removably attaches to carry-on luggage, e.g., a roll aboard suitcase, at the top handle with attaching, adjustable straps, and generally lays flat on a face of the suitcase. When open, the device exposes a large pouch where shoes and other objects can be placed. Inside the pouch is at least one small pocket where money change, large jewelry, a passport, a cell phone, or the like could be placed. When closed, the pouch folds up, e.g., in three, and remains closed and attached to the suitcase by the straps attaching to buttons, snaps, or other securing devices.

[0015] The pouch is designed to be used with carry on luggage and to remain on the suitcase at all times, either open or closed. As the pouch is collapsible, it is small enough to remain on the carry-on luggage and be stowed on an airplane. The connecting straps are also of adjustable length so that the pouch can effectively fit differently sized suitcases in order to still lay flat on the suitcase during the airport screening process, as well as when just being wheeled through the airport or stowed on the airplane. Socks or

slippers can optionally be enclosed in the pouch as well, so that people can avoid stepping directly on cold, dirty, bare floors once they remove their shoes prior to arriving at the airport screening station.

[0016] Turning now to the drawing figures, an exemplary pouch 10 in accordance with the present invention is illustrated. The pouch 10 includes a front 12 and a back 14 which are joined together along closed sides 20, 22 and a closed bottom 18, and forms an open top 16. At least one strap 24 is attached to the pouch 10, a portion of which extends from the top 16. Preferably, at least a second strap 26, constructed in the same manner as the first strap 24, is also provided and attached to the pouch 10 at a distance from the first strap. The strap 24 includes a releasable connector system 28, 30 that can form a loop which can be placed around a portion of a piece of luggage, so that the pouch 10 can be releasably attached to the luggage, as described in greater detail below. As a non-limiting example, the connector system can include male 28 and female 30 bayonet-type connectors, although other types of connectors, such as hook and loop-pile type fasteners (e.g., VELCRO fasteners), buttons, and the like, can be used. The pouch 10 also preferably includes a first device 66 for holding the pouch 10 in a folded position, e.g., a button, bayonet connector, VELCRO, or the like, and which cooperates with a corresponding second device 68 on another portion of the pouch to form a securing system. Preferably, the first device 66 is positioned on the strap 24, but can alternatively be positioned on the front 12 or back 14 adjacent to the top 16., and the second device 68 is formed in or on a portion of the pouch adjacent to the bottom 18.

[0017] The strap 24 also optionally is constructed to be adjustable in length (not illustrated), in a manner with which the skilled artisan is well-acquainted. Preferably, the strap 24 (and when provided, strap 26) is positioned at a distance from the side(s) of the pouch 10, so that the strap can better balance the pouch when attached to a piece of luggage.

[0018] With reference to Fig. 2, the straps 24, 26 preferably include one or more extensions 34, 32, respectively, that are at least partially secured to and extend along at least a portion of the length, and preferably extend substantially the entire length, of the

pouch when in its open configuration (Figs. 1 and 2). Also illustrated in Fig. 2 (in phantom) is a stiffening member(s) or element(s) 36 that stiffens the pouch when the pouch is in its folded configuration (Fig. 3). As illustrated in Fig. 2, the stiffening members 36 are preferably segmented, e.g., provided in a plurality of parts, so that the pouch 10 can be folded along lines 38, 40. As will be readily appreciated by those of skill in the art, while the stiffening members 36 are illustrated as being segmented into three portions, thus permitting the pouch to be easily folded at two lines 38, 40, the stiffening members can be segmented in two or more portions. The stiffening members can be sewn into the back 14, e.g., inside the pouch 10. According to a somewhat less preferred embodiment of the invention, the stiffening members 36 can be secured directly to the back 14, such as by an adhesive, sewing, heat stacking, rivets, or the like.

Furthermore, while the drawing figures suggest that the stiffening members extend around substantially the entire area of the back 14, the stiffening members can be smaller and of different shapes, as long as they function to stiffen the pouch as described herein.

[0019] As can be seen in the illustration of Fig. 3, the pouch 10 can be folded up with the back 14 of the pouch now on the outside of the device, exposing the extensions 32, 34 of the straps 26, 24. Yet another aspect of the present invention includes that a bottom portion or portions 70 of the straps 24, 26, in a bottom section C of the pouch below the bottom 18 and the fold line 40, is not attached to the back 14. The portion or portions 70 includes the second device 68. In this way, when the bottom section C of the pouch 10 is folded up with the straps remaining on the outside of the pouch, the portion or portions 70 are not folded up with the bottom section C. When the bottom section C and the middle section B are then together folded up against the top section A, along the fold line 38, the portion or portions 70 of the straps 24, 26 are positioned on the outside of the resulting folded pouch. In this folded orientation, the first device 66 and the second device 68 are positioned generally near each other so that they can be joined together to form a securing system that holds or secures the pouch in the folded configuration. Of course, when only two sections A, C of the pouch are provided, the portion or portions 70 are still provided in the bottom section C.

[0020] In a preferred embodiment of a pouch according to the present invention, the interior of the pouch 10 includes a large interior pocket 60, and optionally one or more smaller interior pockets 62, 64 (see Fig. 1). Each of these pockets can be provided with its own closure systems, e.g., zippers, VELCRO closures, or the like. More preferably, the pocket 60 and pouch 10 are sized and configured to receive a pair of adult shoes, e.g., with the shoes oriented sideways in the pouch, and yet more preferably the pocket 60 extends over the whole area of the pouch.

[0021] Figs. 4 and 5 illustrate a pouch 10 in accordance with the present invention when mounted on a piece of luggage, e.g., a rollable suitcase or briefcase 42. The suitcase 42 includes an enclosure or housing 44 formed by soft, semi-soft, or rigid sidewalls (or combinations thereof), includes a handle 46, and optionally includes an extendible handle 48 and wheels 50. As can be seen in the illustrations of Figs. 4 and 5, a pouch 10 in accordance with the present invention can be attached to the handle 46 by looping the strap 24 or straps 24, 26 through the handle, and connecting the mating connectors 28, 30. Thus, the pouch 10 is releasably secured to the suitcase 42. When it becomes necessary to pass through the security systems present in an airport, the traveler can remove whatever items from their person may be problematic when passing through a metal detector unit, and optionally their shoes, unfold the pouch from its folded configuration, place the items into the pouch 10, fold the pouch as described herein, secure the pouch in the folded orientation, and place the luggage 42 with the pouch onto the conveyor belt 54 of an X-ray scanning system 52 (see Fig. 6). Preferably, the pouch 10 is sized so that it is shorter in length than a piece of luggage 42 to which it is to be attached, so that when in an open configuration the pouch will not extend past the edge of the luggage and touch or drag on the floor.

[0022] The pouch 10 is preferably made of a flexible, durable fabric (nylon, waterproof cloth, cotton, blends). The stiffening members can be formed of numerous materials, e.g., high-density cardboard, plastic, wood, and high-stiffness fabrics, and are preferably (although not necessarily) relatively radio-transparent so that the X-ray machines used in airport security screening systems will not show the stiffening members

enclosed in the backside portion of the pouch. The straps to attach the pouch to the handle are preferably made of a flexible, durable fabric (e.g., nylon, cotton, or the like). Devices to attach the straps to the handle can be made of plastic, metal snaps or buckles, hook and loop pile type fastening systems, e.g., VELCRO fasteners, or the like. Similar or the same devices can be used for closing the pouch when it is not being used.

[0023] While the present invention is not limited to the numerous benefits identifies herein, those of ordinary skill in the art will appreciate the following. Time can be saved by the pouch user at the airport screening station, and additional time can be saved when many airport patrons adopt the use of such pouches. There can be a reduced dependency on plastic containers to hold shoes and other items at airport screening station, which can be a benefit to the U.S. federal government and a relief of the use of taxpayer funds, which in turn could potentially lead to reduced staff to handle the plastic tubs currently used. Fewer tubs could lead to fewer potential thefts of personal goods during the screening process that become separated from the suitcase, from placement in the tub. Energy can also be saved by quicker processing of travelers, again a benefit to the U.S. federal government and the environment. The wearing of socks or slippers held within the device can help prevent the spread of foot disease among travelers.

[0024] While the invention has been described in detail with reference to preferred embodiments thereof, it will be apparent to one skilled in the art that various changes can be made, and equivalents employed, without departing from the scope of the invention.